**2.3.2 Installation of MILES 2000 on M2/M3.** (See Figure 2-13)

**NOTE**

Some vehicles may already have fastener tape applied. If so, proceed to installation instructions. Do not prime areas where there is already tape in good condition.

**2.3.2.1 Detector Belt Fastener Tape.**

**2.3.2.1.1 Applying Fastener Tape for Detector Belts.**

a. Mark the vehicle for primer/fastener tape application along the areas where the belts will be routed. Those areas are described in the following paragraphs and shown in Figure 2-14.

b. The detector belt labeled **Left/Rear** starts on top of the turret at the left front corner with the connector (P5) attached at that location (Figure 2-15). The attached "L" shaped TOW detector belt (part of left rear belt) is then routed down the forward-facing edge of the lowered TOW with the bottom of the L routed towards the rear of the vehicle (Figure 2-16). The main part of the belt will break off into two (2) segments, a short segment which is installed underneath the lowered TOW, and a long segment which is routed along the bottom edge of the right side of the turret, and around the rear of the turret. (The short segment installed underneath the lowered TOW will provide detectors along that portion of the vehicle when the TOW is raised into firing position.)

c. The detector belt labeled **Right/Front** starts at the top left corner of the main gun with the connector (P4) attached at that location (Figures 2-17). The belt is then routed down the front of the turret to the right, then up and around the mantle all the way to the right of the coax machine gun. At that point, the belt is routed down to the lower edge of the turret, around the right side, ending up at the rear of the turret.

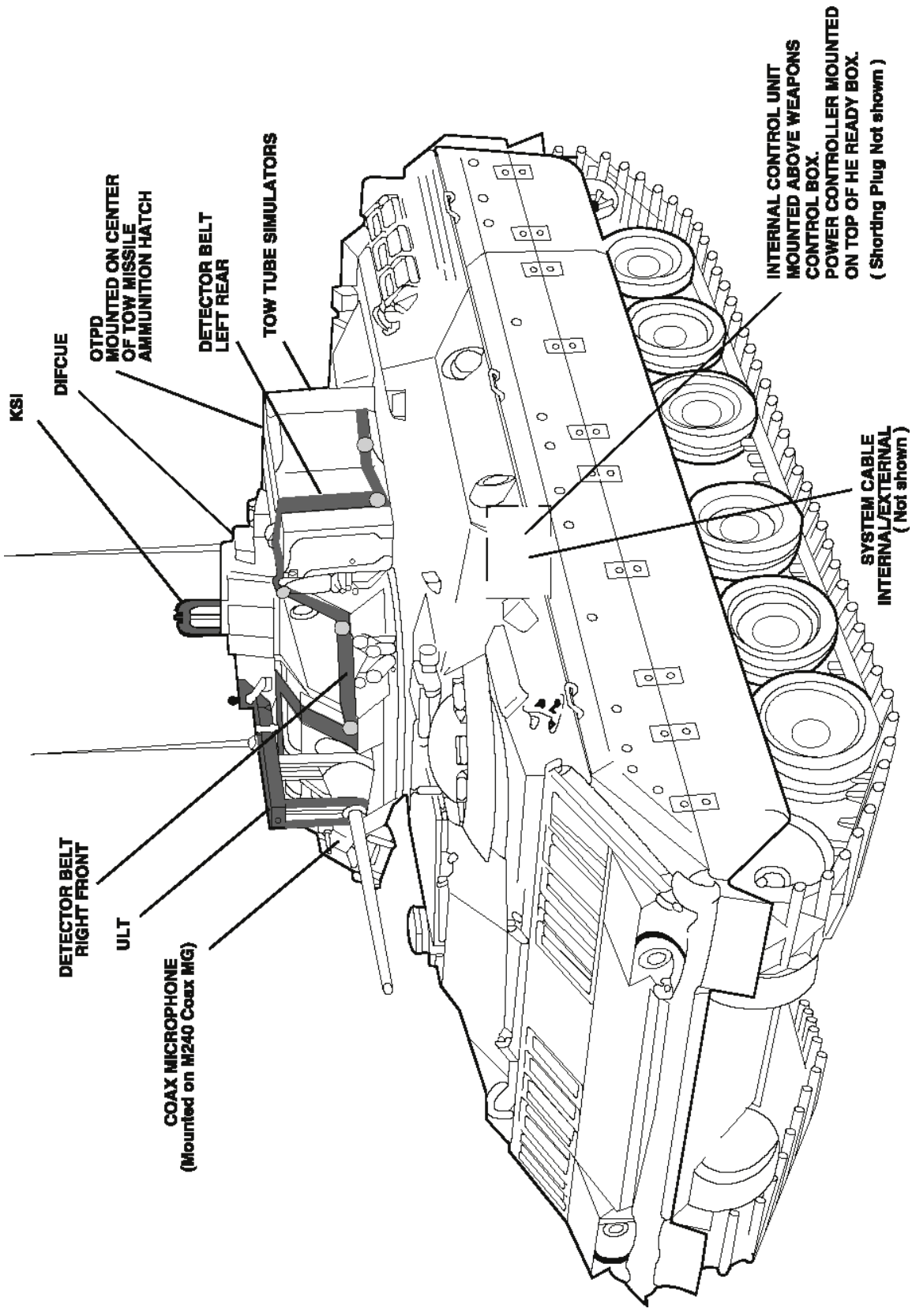


**Figure 2-13. M2/M3 Bradley Fighting Vehicle.**

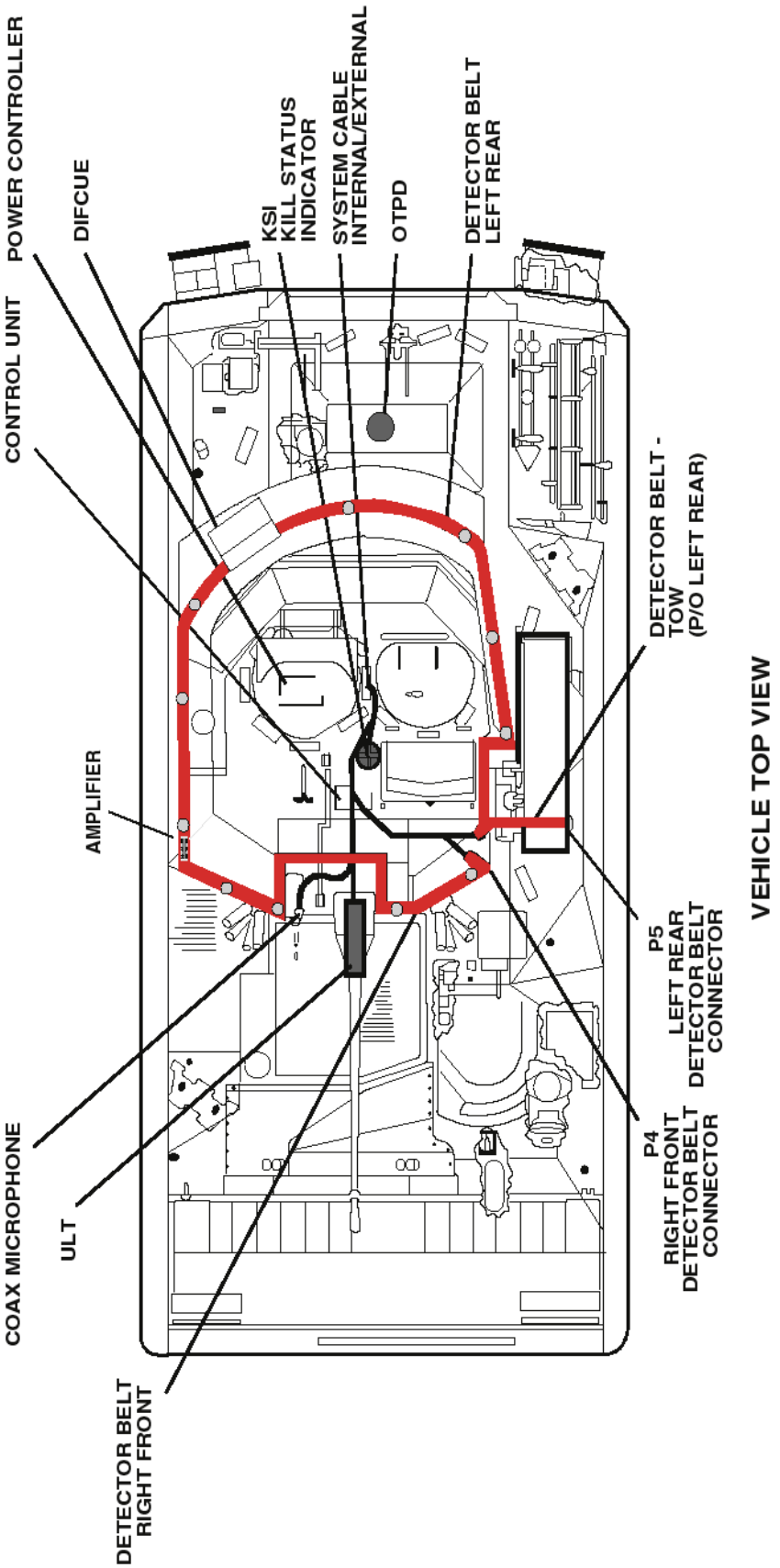


**Figure 2-14. M2/M3 Detector Belt Positioning.**

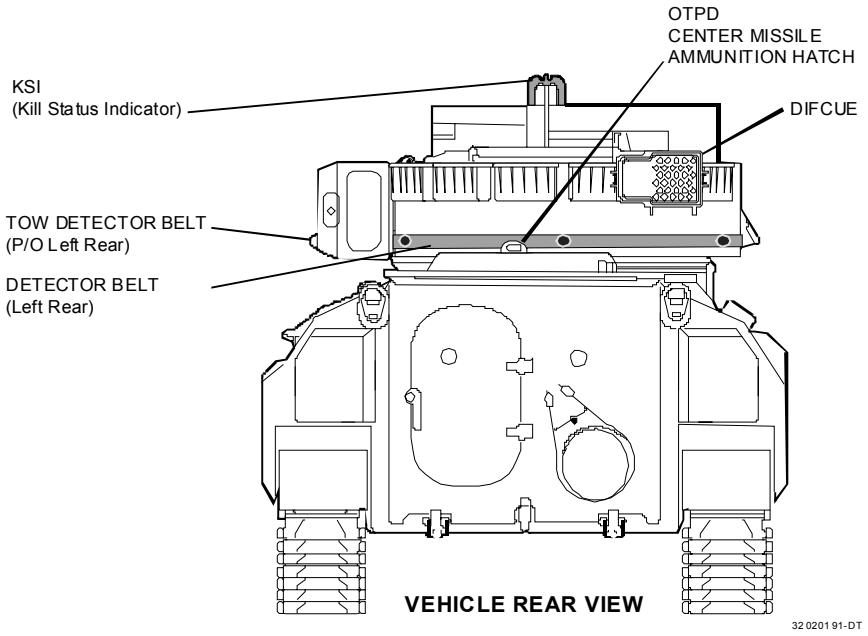


**Figure 2-15. M2/M3 Rear View.**

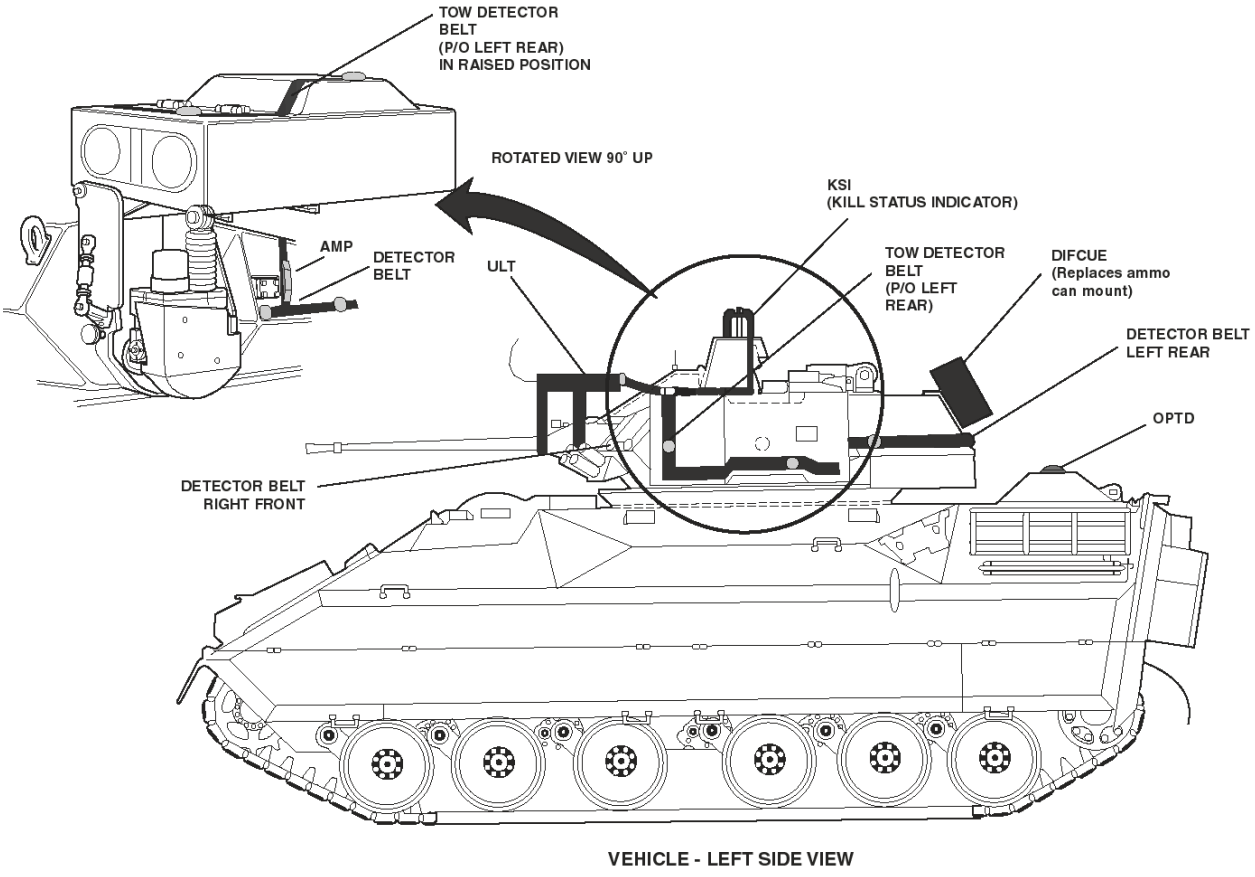


**Figure 2-16. M2/M3 Detector Belt Location.**

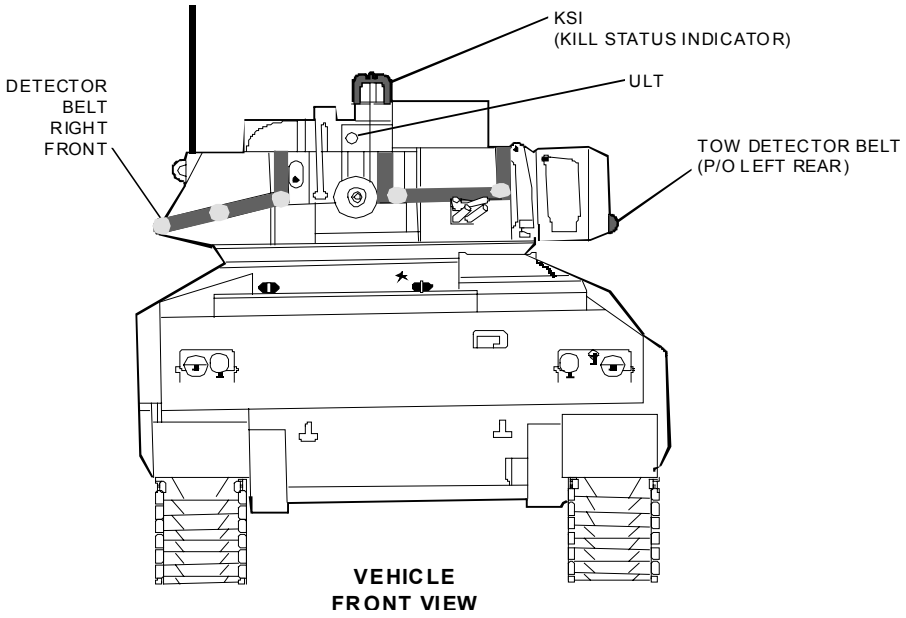


**Figure 2-17. M2/M3 Front View Detector Belt**

**2.3.2.1.2 <u>Fastener Tape Preparation</u>.** Much of the MILES 2000 equipment is mounted with fastener tape. If fastener tape is not affixed to the vehicle already, or if existing tape is worn and unserviceable, remove any existing tape and use the following directions to apply/reapply the fastener tape:

a. Clean all areas where fastener tape is to be installed with water, a brush, if necessary, and rags. Tape will not adhere to a dirty, wet, or oily surface. (See Figure 2-18.)

**WARNING**

Tape primer is toxic and highly flammable. Do not spray near heat, open flame, or sparks. Use primer only in well ventilated areas. Do not permit smoking in the area. Injury to personnel may result.

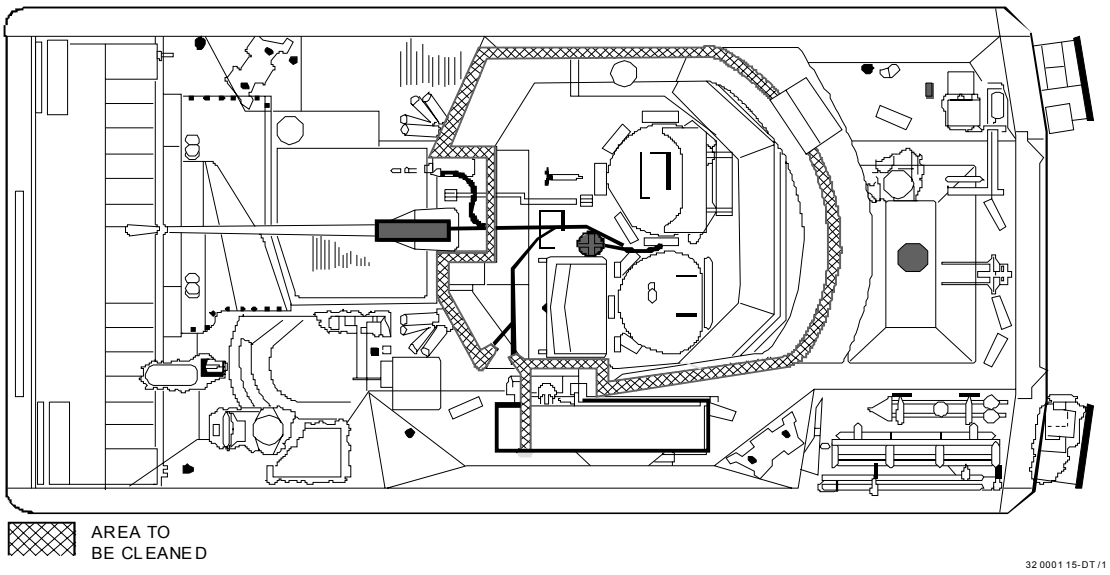


**Figure 2-18. M2/M3 Area of Vehicle to be Cleaned Prior to Adding Fastener Tape.**

b. Spray a heavy coat of tape primer on the cleaned areas along the strip where the fastener tape will be applied. Allow primer to dry thoroughly before applying the fastener tape.(Follow the directions on the primer can.) (See Figure 2-19.)

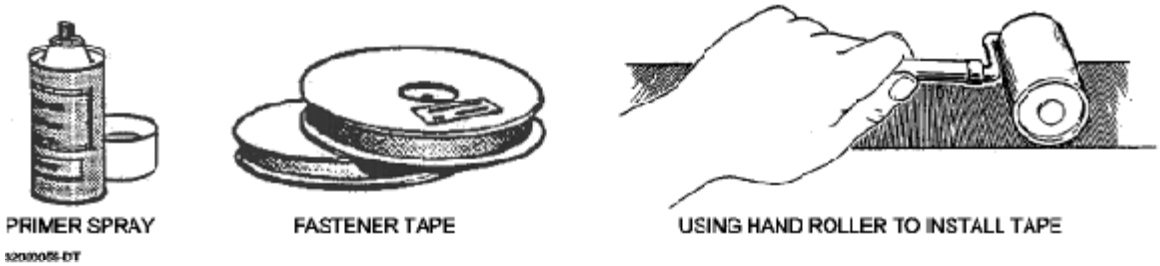


**Figure 2-19. Fastener Tape Preparation.**

**NOTE**

The fastener tape has a protective backing. When applying short lengths of tape, remove all the backing before installing the tape. When applying longer lengths, remove the backing gradually as you apply the tape. This will help keep the tape adhesive from sticking to itself or to the wrong surface.

The quadrants of the vehicle-left/front, right/front, left/rear, right/rear are determined from the driver's viewpoint, which would be as facing towards the front of the vehicle. All installation instructions are given from this viewpoint, even though at times the installer may be facing to the rear of the vehicle.

MILES equipment installation procedures should be followed as outlined in the technical manual. If the following procedures CANNOT be followed due to cable length or additional vehicle equipment, then place the MILES equipment in the best and safest location.

**2.3.2.1.3 Fastener Tape (Right/Front).** Apply fastener tape to match the outline. Ensure that the tape does not buckle or crease.

**2.3.2.1.4 Fastener Tape (Left/Rear).** Apply fastener tape to match the outline. Ensure fastener tape does not buckle or crease.

**2.3.2.2 Detector Belts.**

a. Remove detector belts from the transit case and inspect belt segments for damage.

b. Wipe all detectors clean.

c. Replace and report damaged equipment as required

d. Working in short sections, press the detector belt labeled **Left/Rear** along the fastener tape applied for that belt. Ensure that there are no buckles or creases in the belt. The connector for the System Cable should be positioned at the left front corner of the turret. (See Figure 2-20.)

e. Working in short sections, press the detector belt labeled **Right/Front** along the fastener tape applied for that belt. Ensure that there are no buckles or creases in the belt. The connector for the System Cable should be positioned at the left front corner of the turret. (See Figure 2-21.)

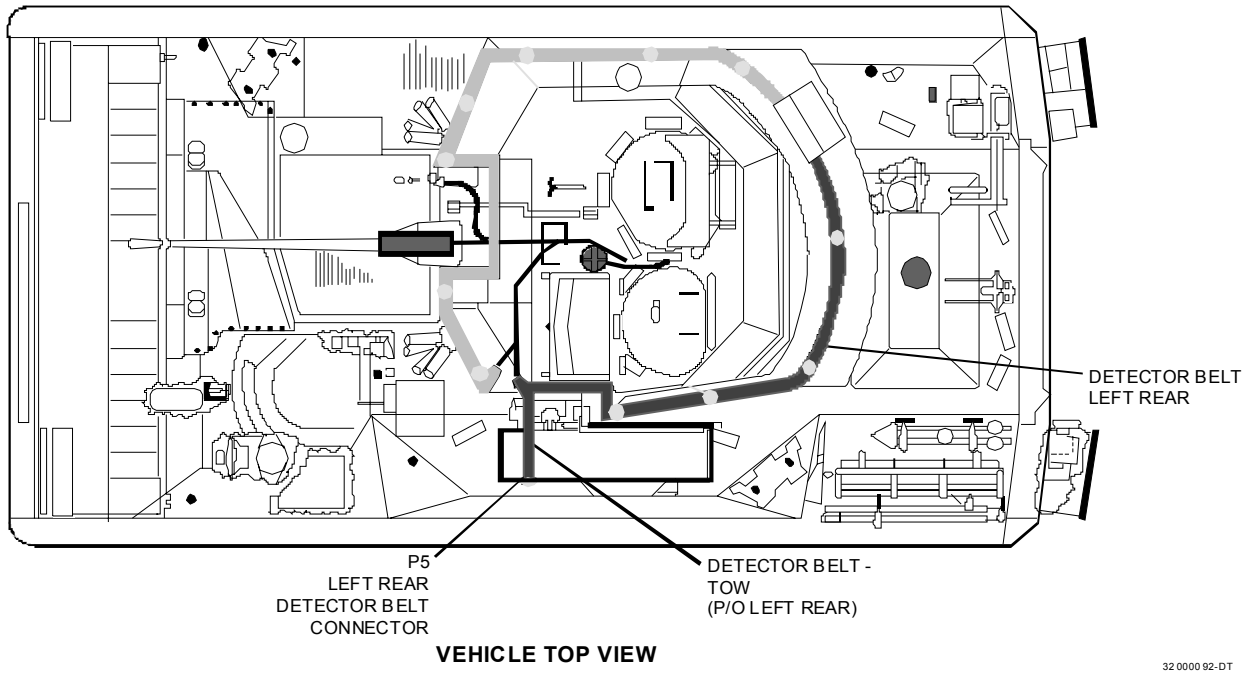


**Figure 2-20. M2/M3 Left/Rear Detector Belt Location.**

**CAUTION**

Do not spill fuel on detector belts or fastener tape. Fuel dissolves the adhesive properties of the tape primer and may cause a detector belt to fall from the vehicle, causing damage or loss of a detector belt.

**2.3.2.3 Kill Status Indicator (KSI).**

a. Remove the KSI and the adapter assembly from the transit case.

b. Inspect strobe assembly of the KSI for cracks.

c. Inspect connector for dirt and/or damage.

d. Replace and report damaged equipment as required.

e. The adapter assembly mounts to the right side of the Integrated Sight Unit (ISU). The adapter assembly has an adapter pin on the right upper side of the adapter. (See Figure 2-22.) Insert this adapter pin into the ISU lifting eye closest to the front of the ISU.

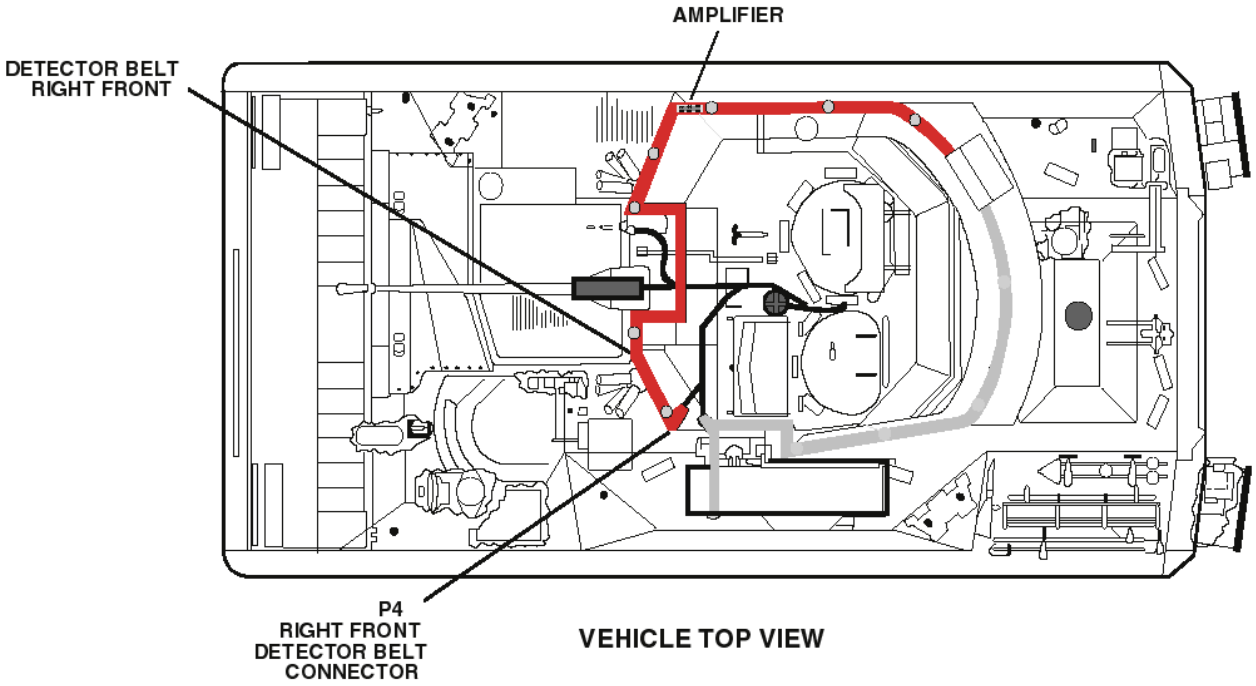


**Figure 2-21. M2/M3 Right Front Detector Belt Location.**

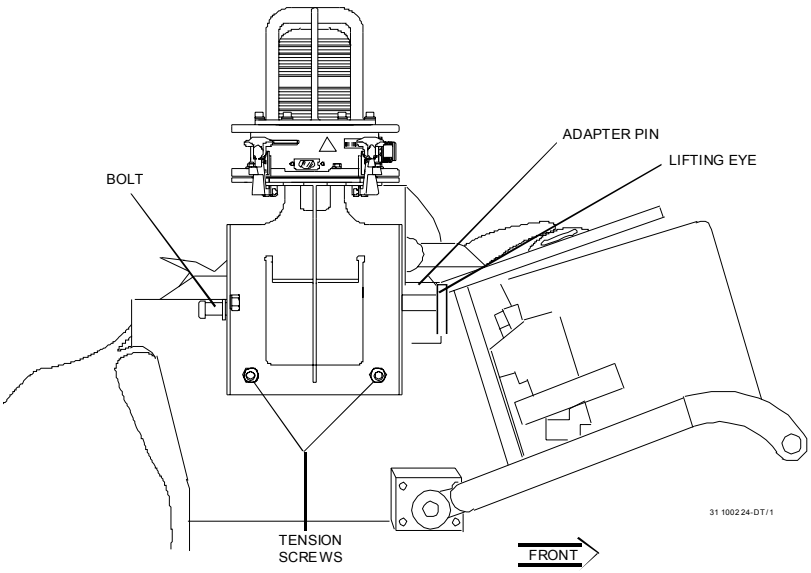


**Figure 2-22. M2/M3 KSI Mounted to the Integrated Sight Unit (ISU).**

f. Remove the bolt from the tapped hole on the other side of the adapter and keep it with you. Align the hole with the opposite lifting eye on the ISU and loosely secure with the bolt.

g. Tighten the two (2) captive bolts at the bottom of the adapter to the side of the ISU until the adapter fits securely against the side of the ISU. Then tighten the bolt in the lifting eye. The adapter must fit as securely as possible without damaging the ISU or the adapter.

h. There should be fastener tape attached to the top of the adapter assembly, as well as to the bottom of the KSI. If this is not the case, apply two (2) large strips of pile fastener tape to the bottom of the KSI (ensuring the center bolt is not obstructed), and two (2) large strips of hook fastener tape to the top of the adapter assembly (ensuring the mounting hole is not obstructed). Refer to paragraph 2.3.2.1.2 for fastener tape preparation.

i. Ensure the KSI is securely mounted.

**2.3.2.4 DIFCUE Installation**. Refer to TD 9-6920-893-10 for installation instructions.

**2.3.2.5 Coax Microphone Assembly.**

a. Remove the Coax Microphone assembly from the transit case and inspect the microphone for any damage that would prevent installation or operation.

b. Inspect connector for dirt and/or damage.

c. Replace and report damaged equipment as required.

d. Install a blank-fire adapter on the Coax Machine gun.

e. Clip the microphone to the gas tube beneath the machine gun barrel. Ensure that the Coax Microphone Cable is not in contact with the barrel. (See Figure 2-23.)

**CAUTION**

Blank fire can heat up the barrel and damage the cable if the cable touches the barrel.

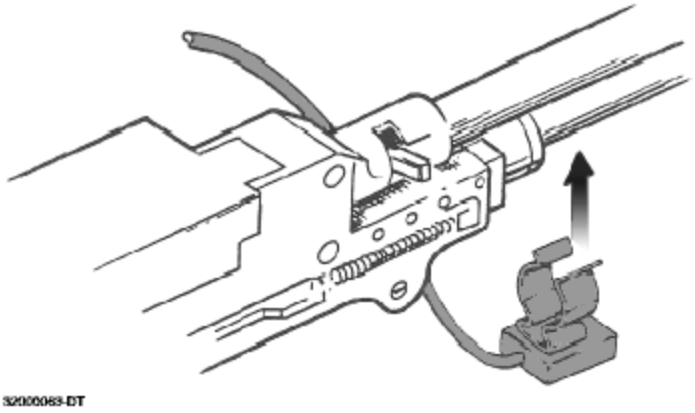


**Figure 2-23. M2/M3 Coax Microphone.**

**2.3.2.6 Universal Laser Transmitter (ULT).**

a. Remove the ULT with the attached ULT adapter from the transit case, and inspect it for any damage that would prevent installation or operation. (See Figure 2-24.)

b. Inspect connector for dirt and/or damage.

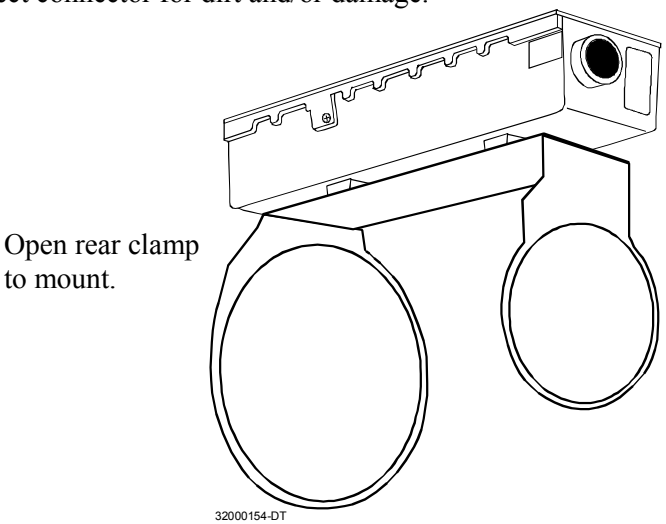


**Figure 2-24. M2/M3 ULT and Adapter Assembly.**

c. Replace and report damaged equipment as required.

d. Mount the ULT on main gun and adjust the ULT and adapter so that the ULT is horizontally aligned with the main gun. The ULT Adapter Assembly clamp needs to be opened to facilitate mounting the device on the main gun. (See Figure 2-25.)

**2.3.2.7 TOW Simulator Tube Assembly.**

a. Remove the TOW Simulator Tube (Figure 2-26) from the transit case and inspect for damage.

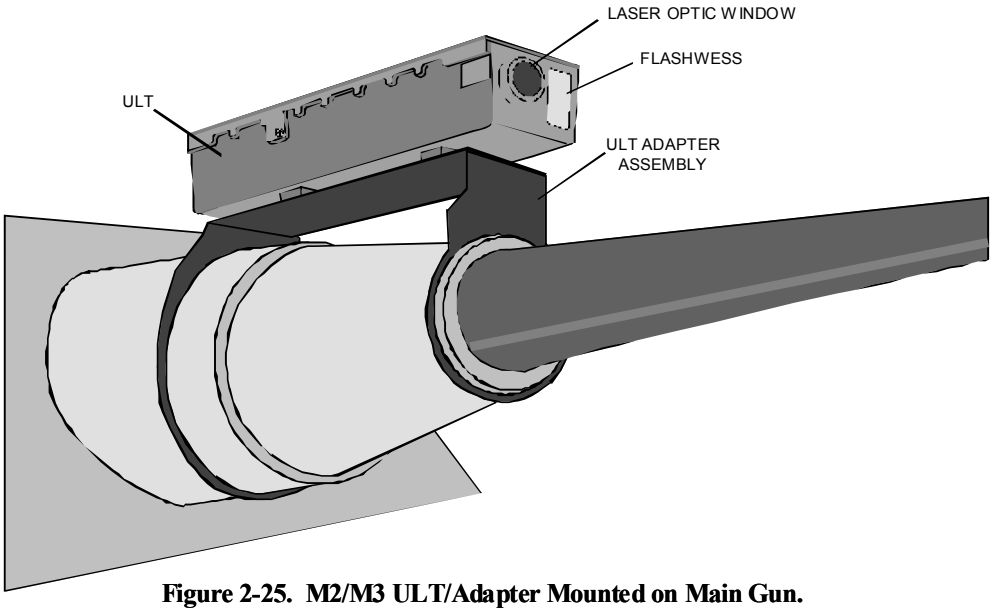


**Figure 2-25. M2/M3 ULT/Adapter Mounted on Main Gun.**

b. Remove shipping plug from TOW Simulator Tube umbilical connector.

c. Ensure 9-volt battery is installed.

**NOTE**

Ensure that you are issued two (2) 9-volt batteries at a minimum; one (1) for immediate use and one (1) for backup, should the first one be bad or go bad from extended use.

d. Replace and report damaged equipment as required.

e. Raise the launcher and load the tube into the missile launcher as you would an actual TOW missile. (See Figure 2-27.)

f. If the display for the TOW does not indicate a missile is present, reseat the missile as firmly as possible.

**2.3.2.8 System Cable (Exterior Connection).** (See Figure 2-28.)

**CAUTION**

Ensure Power is off prior to performing the following procedures.

a. Inspect the entire length of the cable, making sure there are no bare wires exposed, and that the cable has not been damaged in any way.
b. Remove shipping plug from TOW Simulator Tube umbilical connector.

c. Ensure 9-volt battery is installed

d. Replace and report damaged equipment as required.

e. Raise the launcher and load the tube into the missile launcher as you would an actual TOW missile. (See Figure 2-27.)

f. If the display for the TOW does not indicate a missile is present, reseat the missile as firmly as possible.

**NOTE**

Place 6" piece of fastener tape to the back of the turret wall behind the radio rack and secure the system cable to the fastener tape. Then route the cables and connect them to the individual units, using fastener tape tie-wraps at intervals. Secure the cables safely out of the way.

Letter/number designators are shown in parenthesis. For example: (P3) or (J1). The designators have been added to clarify connector identifications. Each System Cable segment is labeled with its unique designator as well as with the name of the unit to which the segment should be connected.

Cable segments are labeled with “P” (plug) and “J” (jack) designators as shown in the following example: “P1/J2,” where P1 indicates that the connector of that cable segment is plug #1, and J2 indicates the routing destination, jack #2, of the equipment/cable to which the cable segment is being routed. The installation instructions of this manual identify the equipment/cable to which each cable segment is to be routed.

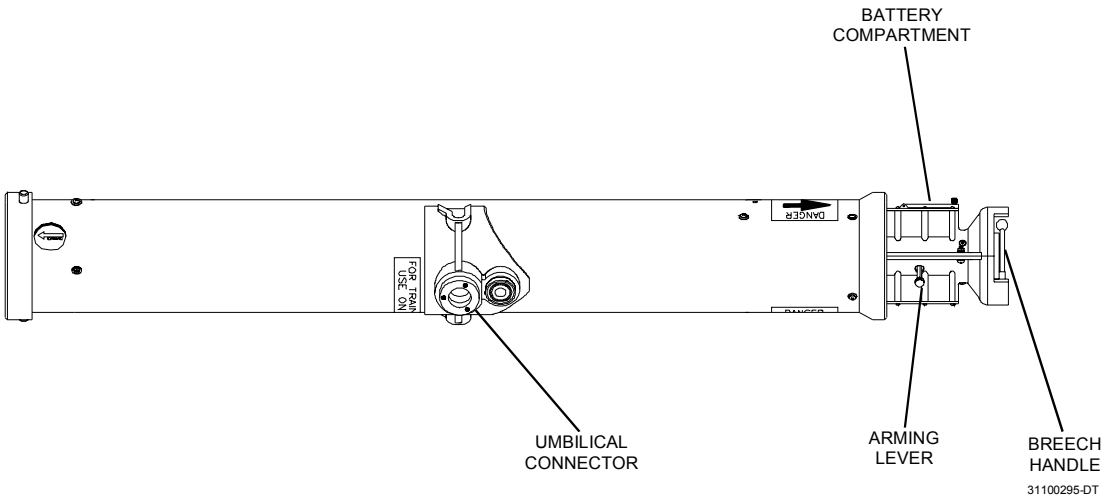


**Figure 2-26. M2/M3 TOW Simulator Tube.**

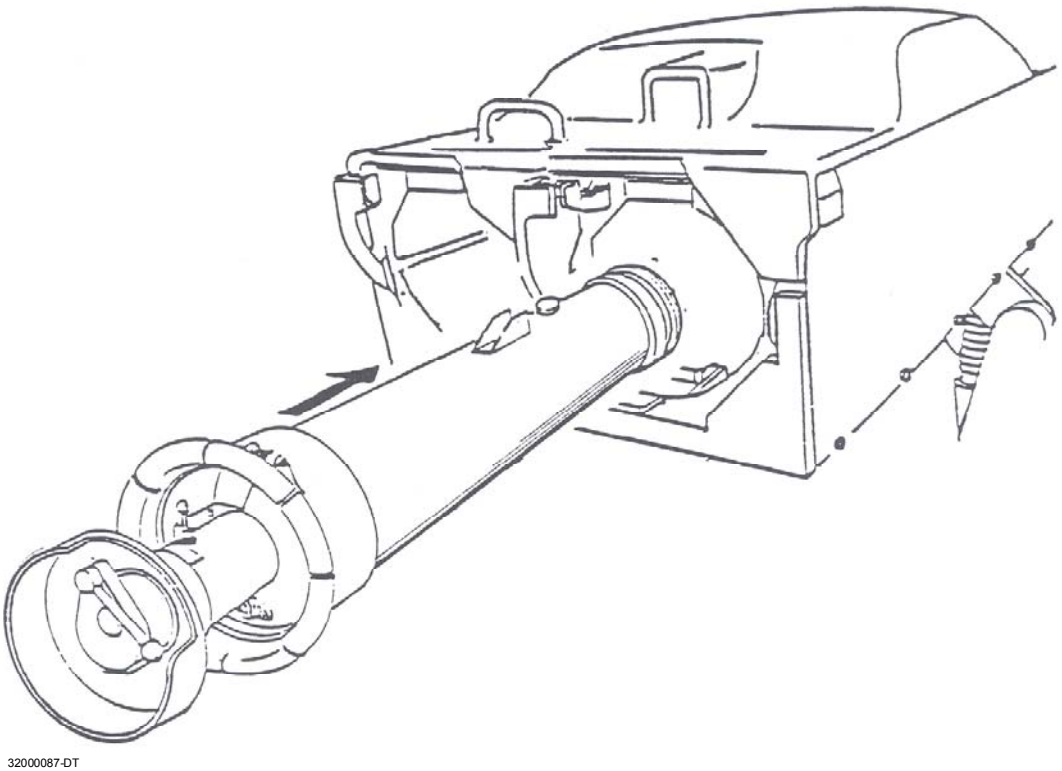


**Figure 2-27. M2/M3 TOW Tube Loading.**